

# V&V Reference Report

## L2 ASCDS Version : 8.4.4

Observation 9394 - L2 Version 2  
Chandra X-Ray Center

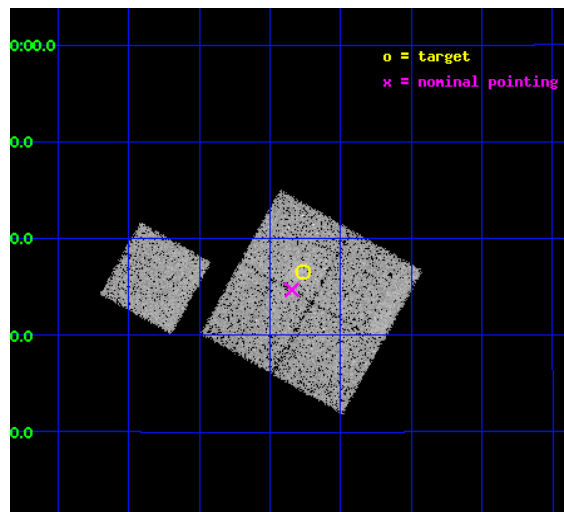
L2 Processing Date : May 5 2012

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# 1 Front

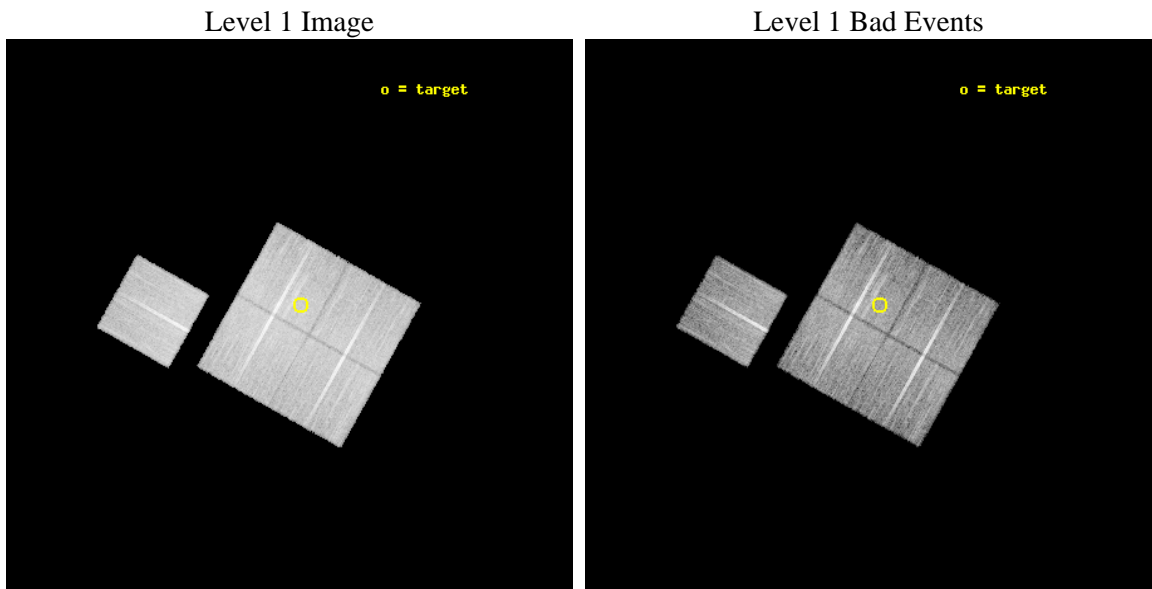
seq_num	800731	Sequence number
obs_id	9394	Observation id
title	SCALING RELATIONS FOR LOW-MASS GALAXY CLUSTERS AND GROUPS	Proposal
observer	Dr. Alexey Vikhlinin	Principal investigator
object	cl0245+0936	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	41.440417	Observer's specified target RA [deg]
dec_targ	9.61	Observer's specified target Dec [deg]
ra_nom	41.461188706491	Nominal RA [deg]
dec_nom	9.5782552146725	Nominal Dec [deg]
roll_nom	299.30346743805	Nominal Roll [deg]
revision	2	Processing version of data
ontime	15165.200116634	Sum of GTIs [s]
livetime	14967.055612653	Livetime [s]
ontime0	15165.200116634	Sum of GTIs [s]
ontime1	15165.200116634	Sum of GTIs [s]
ontime2	15158.91826576	Sum of GTIs [s]
ontime3	15165.200116634	Sum of GTIs [s]
ontime6	15155.777155876	Sum of GTIs [s]
l2events	52584	Number of level 2 events



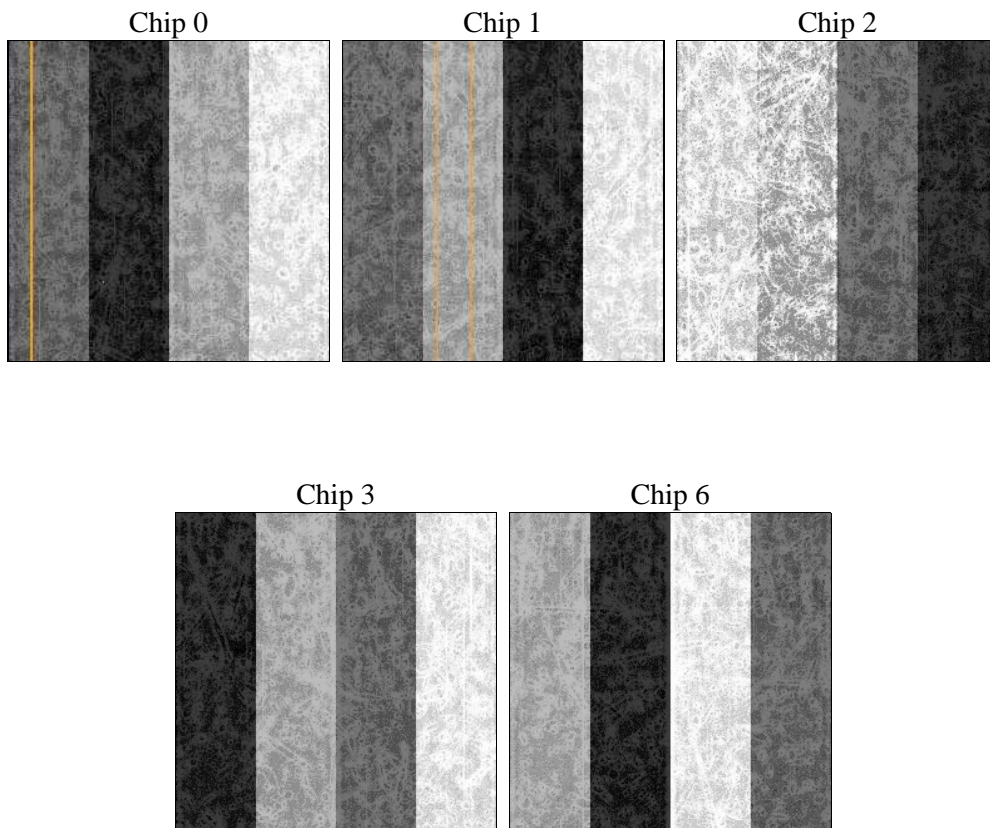
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	15000.000000	[s] Scheduled observation exposure time
ascdsver	8.4.4	Processing system revision	ontime	15165.200116634	Sum of GTIs [s]
caldsver	4.4.9	&#160	ontime0	15165.200116634	Sum of GTIs [s]
date	2012-05-05T21:04:23	Date and time of file creation	ontime1	15165.200116634	Sum of GTIs [s]
revision	2	Processing version of data	ontime2	15158.91826576	Sum of GTIs [s]
			ontime3	15165.200116634	Sum of GTIs [s]
			ontime6	15155.777155876	Sum of GTIs [s]
			l1events	618549	Number of level 1 events

### 2.1.4 Events

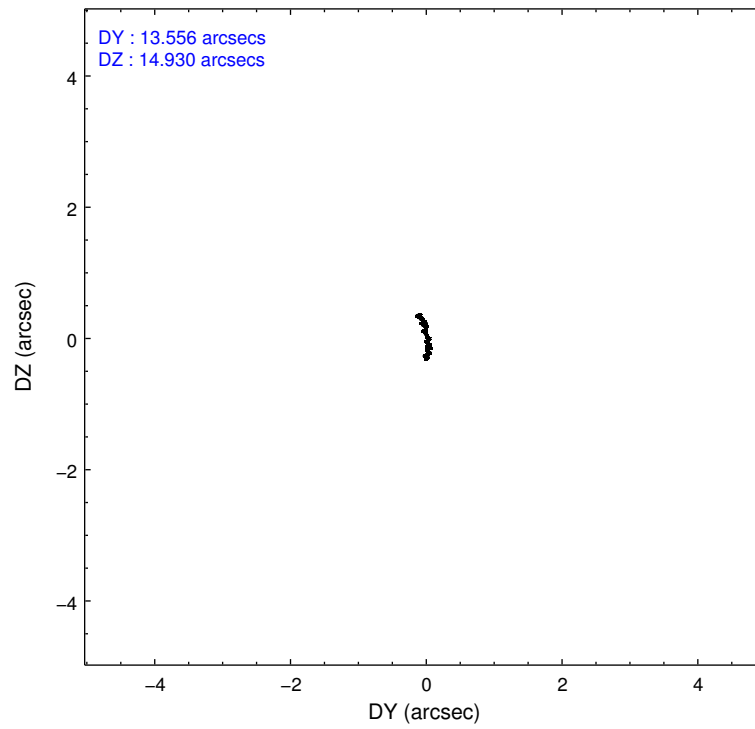
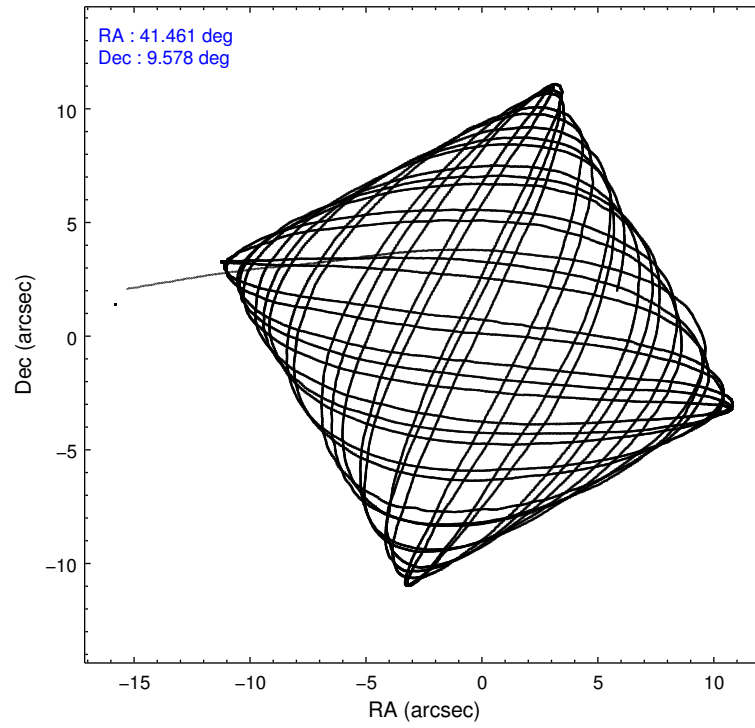
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
level 1 events	117338	115829	131310	126519	127553
rejected events	105007	102256	118941	113934	115148
rejected %	89%	88%	90%	90%	90%

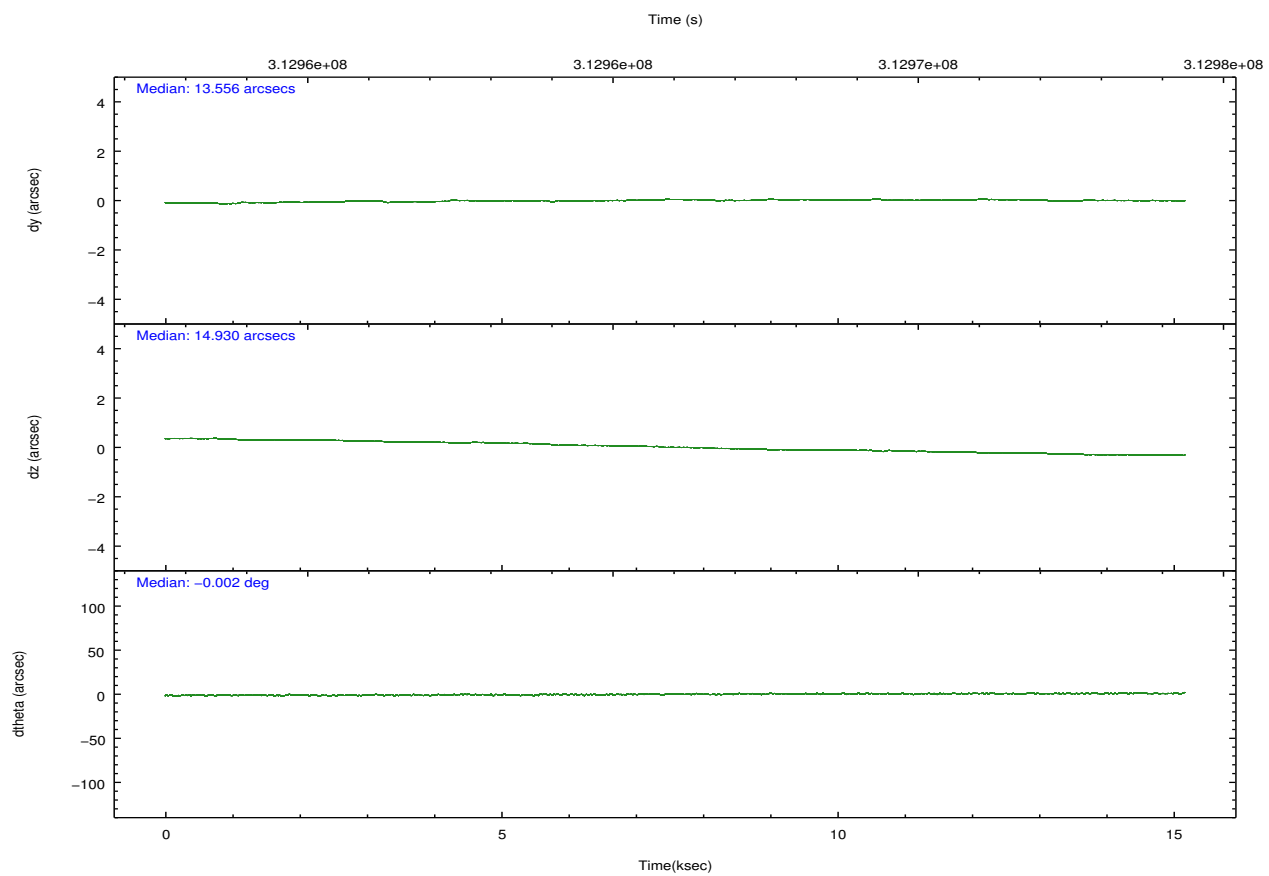
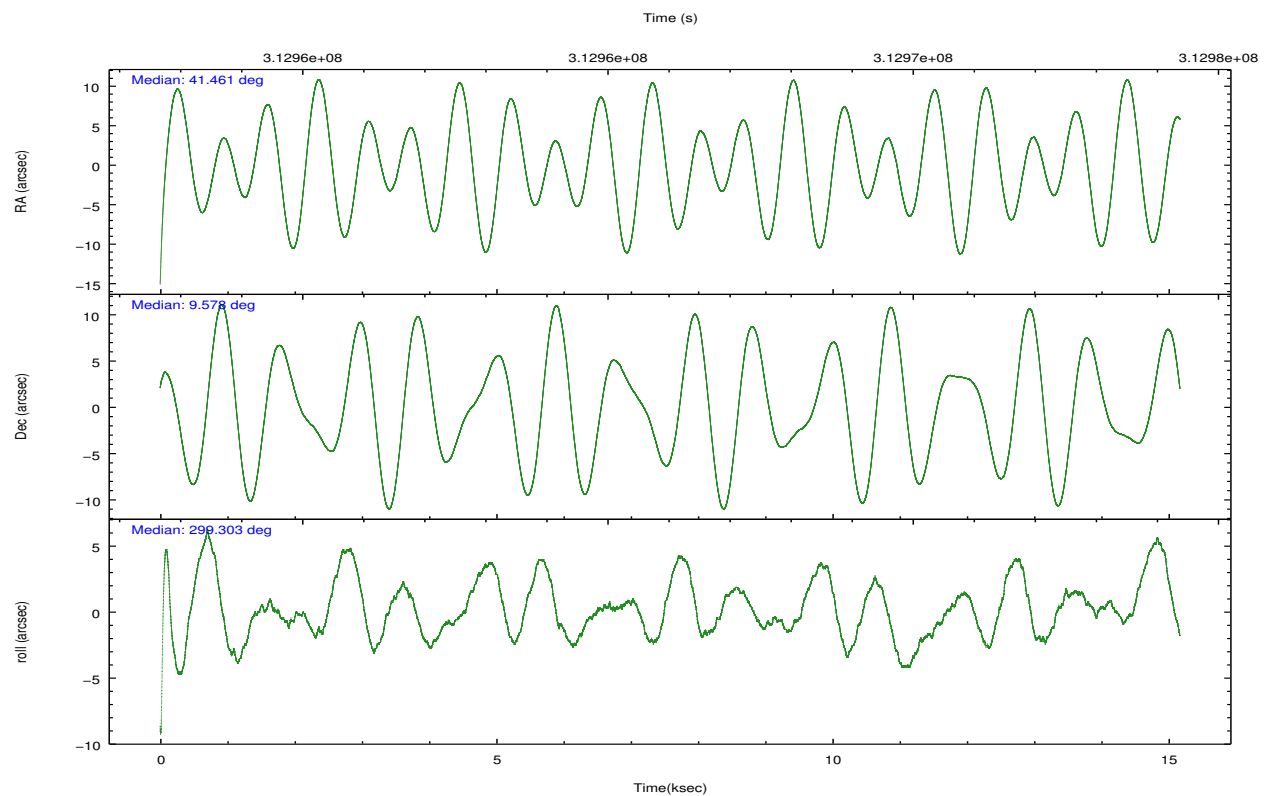
	ccd 0	ccd 1	ccd 2	ccd 3	ccd 6
grade 0 events	4383	4831	4525	4922	4279
	3%	4%	3%	3%	3%
grade 1 events	67	70	61	64	55
	0%	0%	0%	0%	0%
grade 2 events	3015	3045	2952	2663	2764
	2%	2%	2%	2%	2%
grade 3 events	1372	1541	1372	1385	1398
	1%	1%	1%	1%	1%
grade 4 events	1266	1430	1287	1338	1364
	1%	1%	0%	1%	1%
grade 5 events	4275	4733	4030	5063	4842
	3%	4%	3%	4%	3%
grade 6 events	2371	2808	2320	2365	2701
	2%	2%	1%	1%	2%
grade 7 events	100589	97371	114763	108719	110150
	85%	84%	87%	85%	86%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-01236	ACIS-01236	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	Y	Y
Observation mode	POINTING	POINTING	CCD I1 on	Y	Y
[deg] Pointing RA	41.437133	41.46118870649063	CCD I2 on	Y	Y
[deg] Pointing Dec	9.592168	9.57825521467251	CCD I3 on	Y	Y
[deg] Pointing Roll	299.098799	299.3034674380516	CCD S0 on	N	N
[mm] SIM focus pos	-0.782348	-0.7809083437167272	CCD S1 on	N	N
[mm] SIM defocus	0	0.001439871863259334	CCD S2 on	O1	Y
[mm] SIM translation stage pos	-228.592463	-228.5990329025337	CCD S3 on	N	N
[mm] SIM translation stage offset	-5	-4.993420100396037	CCD S4 on	N	N
[s] Observation start time (MET)	312958592.184000	312957548.99084	CCD S5 on	N	N
Observation start date	2007-12-02T04:55:27	2007-12-02T04:39:08	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	312973592.184000	312974401.01666	On-chip summing requested	N	N
Observation end date	2007-12-02T09:05:27	2007-12-02T09:20:01	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.1

## 2.3 Aspect



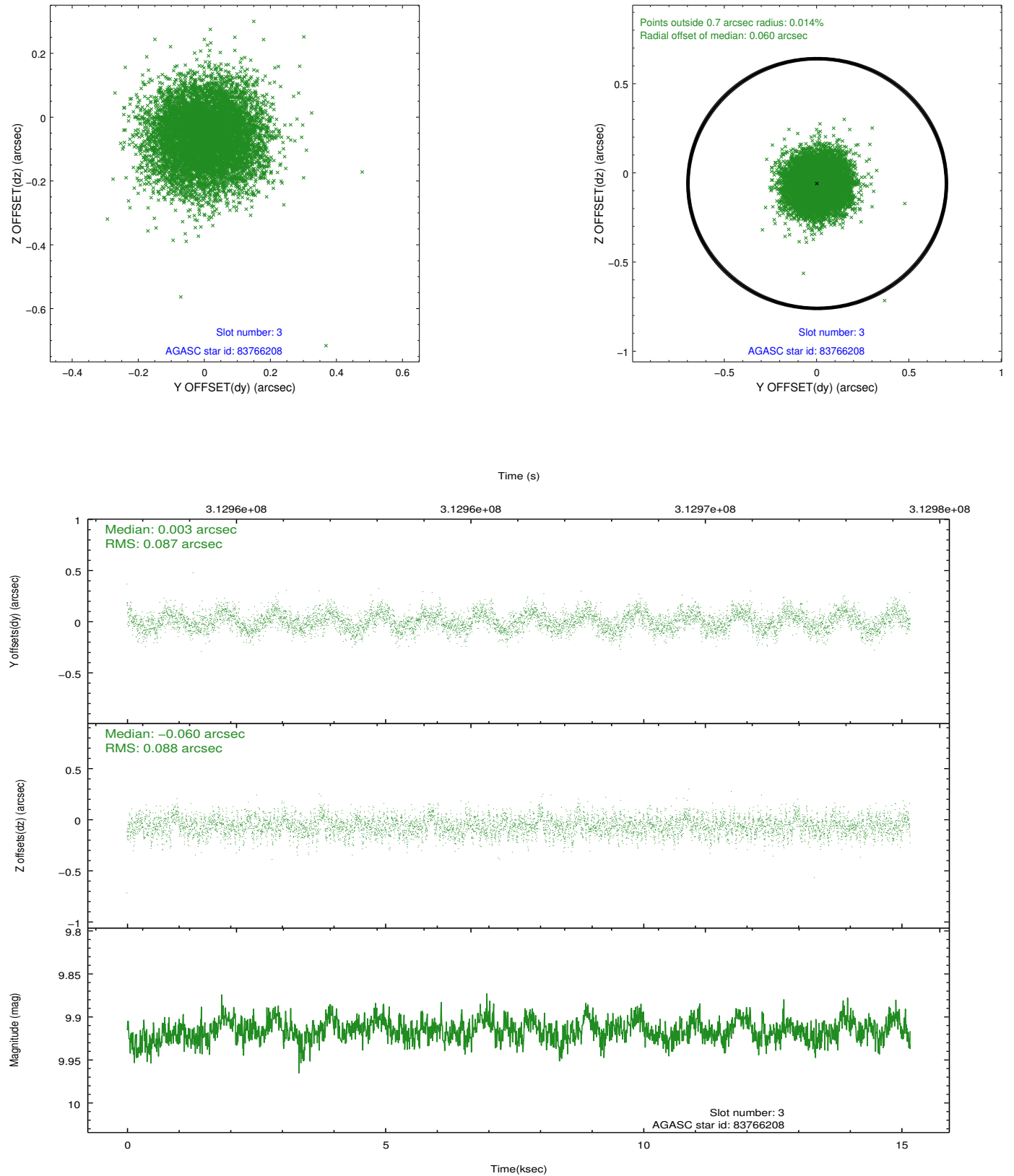


### Slot Statistics

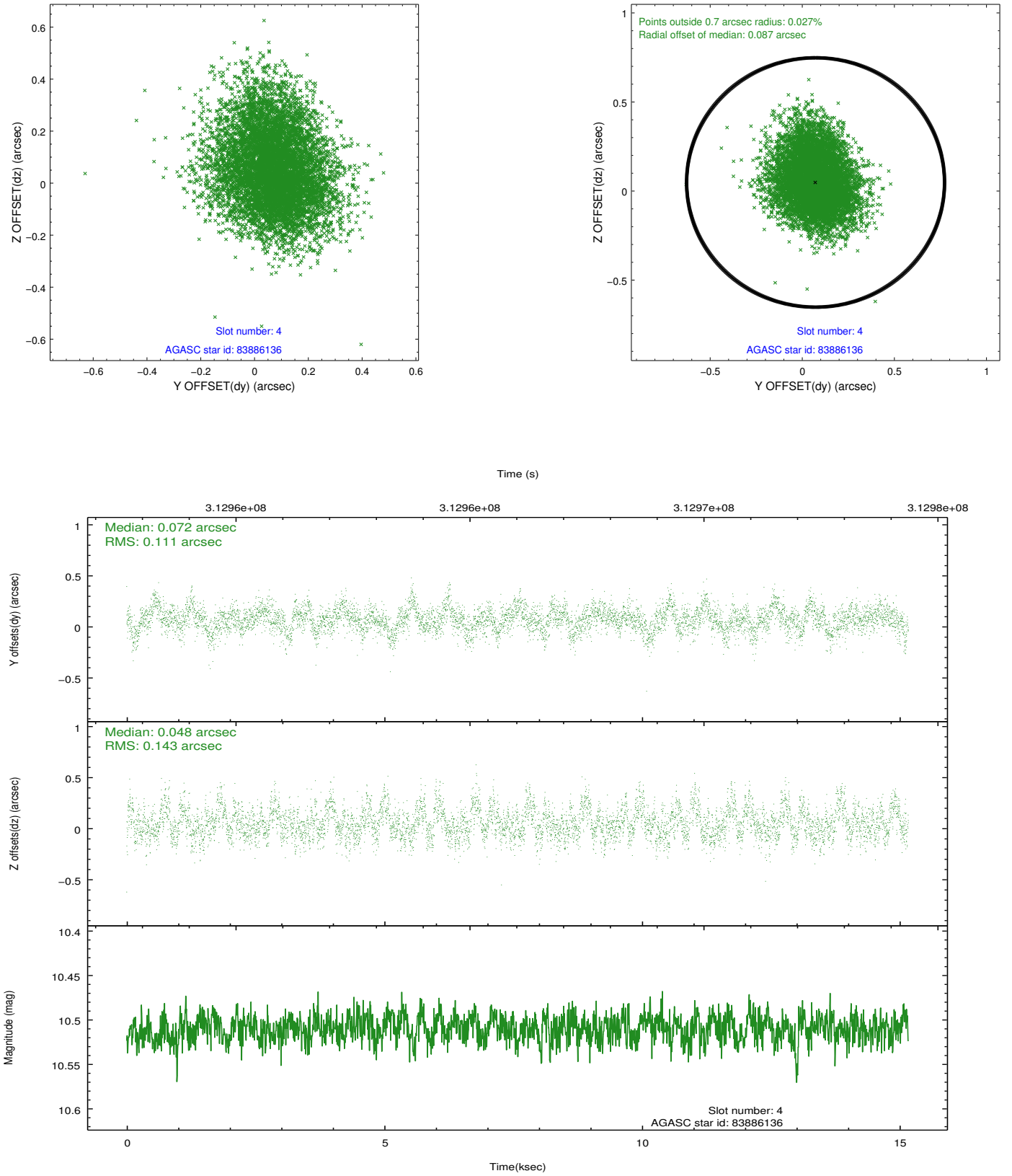
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-I-1	7.23	3700	0.095	-0.033	0.012	0.019	0.000000	0.000000	925.95	-941.06
1	FID	ACIS-I-5	7.22	3700	-0.261	0.087	0.008	0.014	0.000000	0.000000	-1822.34	956.39
2	FID	ACIS-I-6	7.23	3700	0.075	0.018	0.008	0.013	0.000000	0.000000	391.16	1601.15
3	GUIDE	83766208	9.92	7394	0.003	-0.060	0.132	0.208	40.642289	9.803901	-2039.64	-2091.32
4	GUIDE	83886136	10.51	7325	0.072	0.048	0.191	0.313	40.922323	9.630139	-1008.77	-1529.54
5	GUIDE	83886464	8.87	7397	-0.024	0.072	0.093	0.146	41.107049	9.229976	569.11	-1658.95
6	GUIDE	83888808	7.34	7401	0.078	-0.120	0.058	0.092	41.845863	9.307704	1601.12	770.93
7	GUIDE	83892344	9.29	7388	-0.128	0.055	0.116	0.180	41.603079	9.401016	888.61	180.64

## 2.4 Star Slots

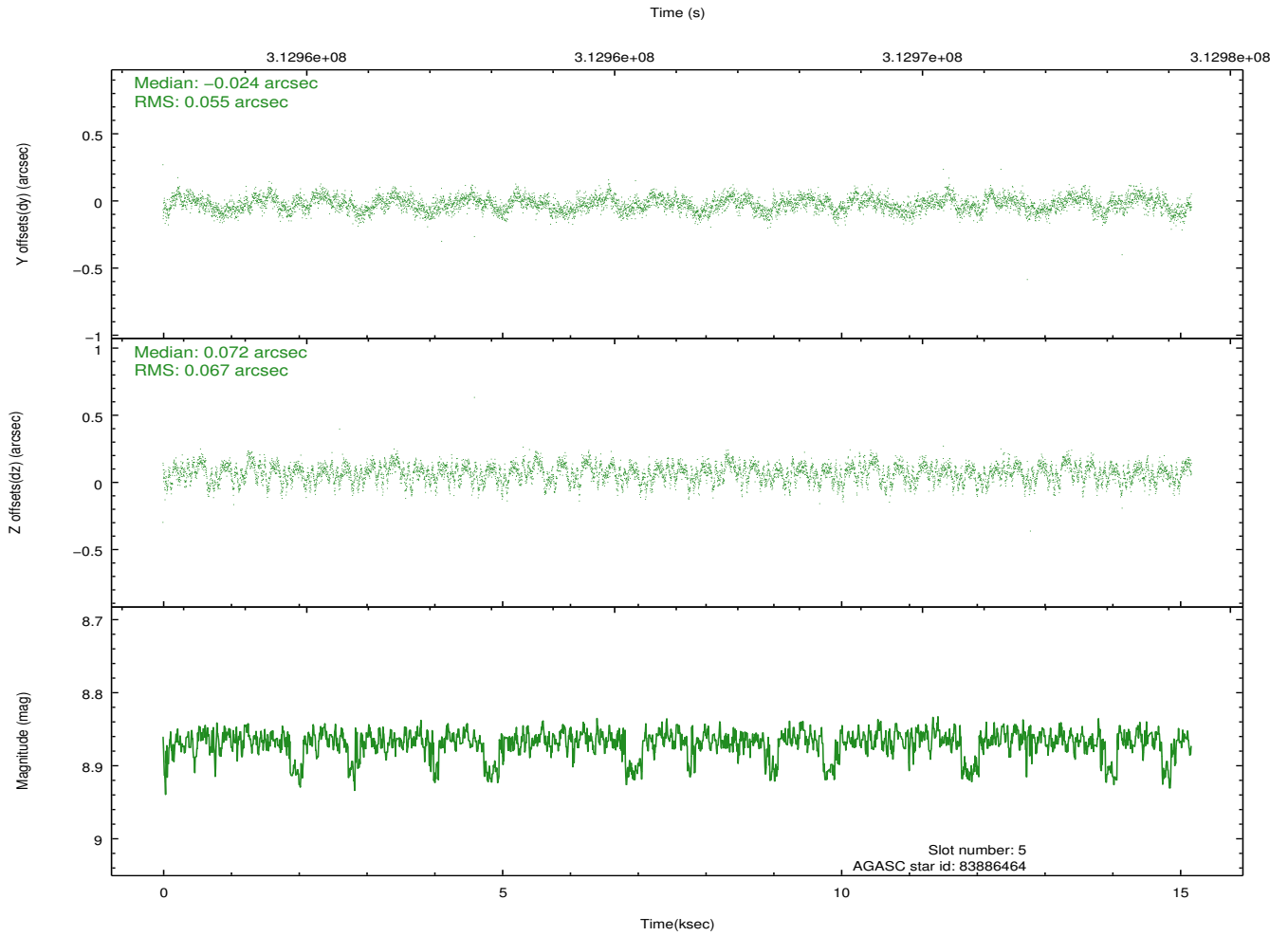
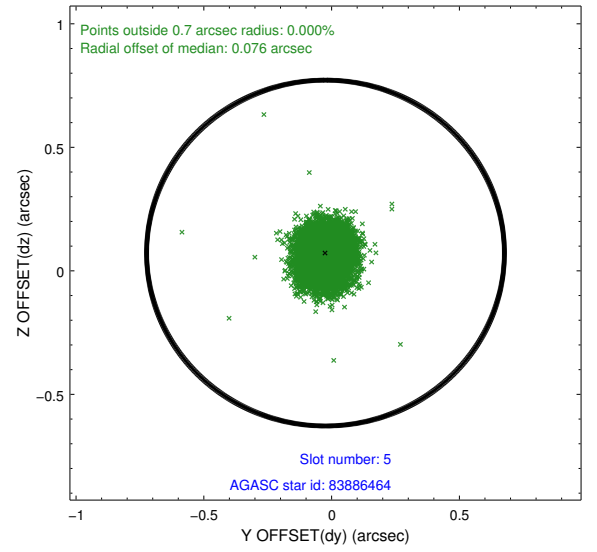
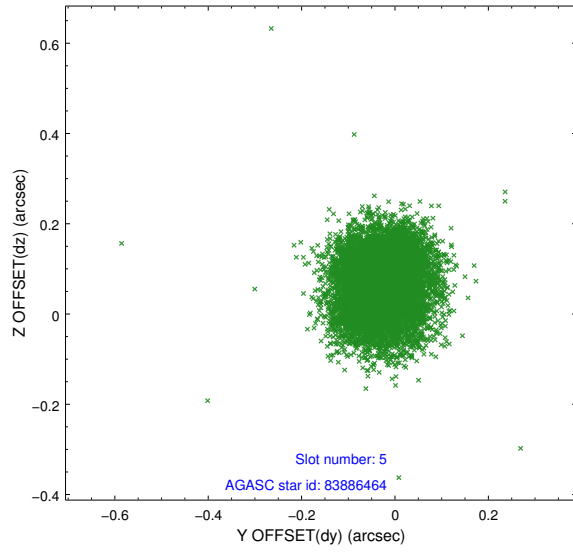
### 2.4.1 Slot 3



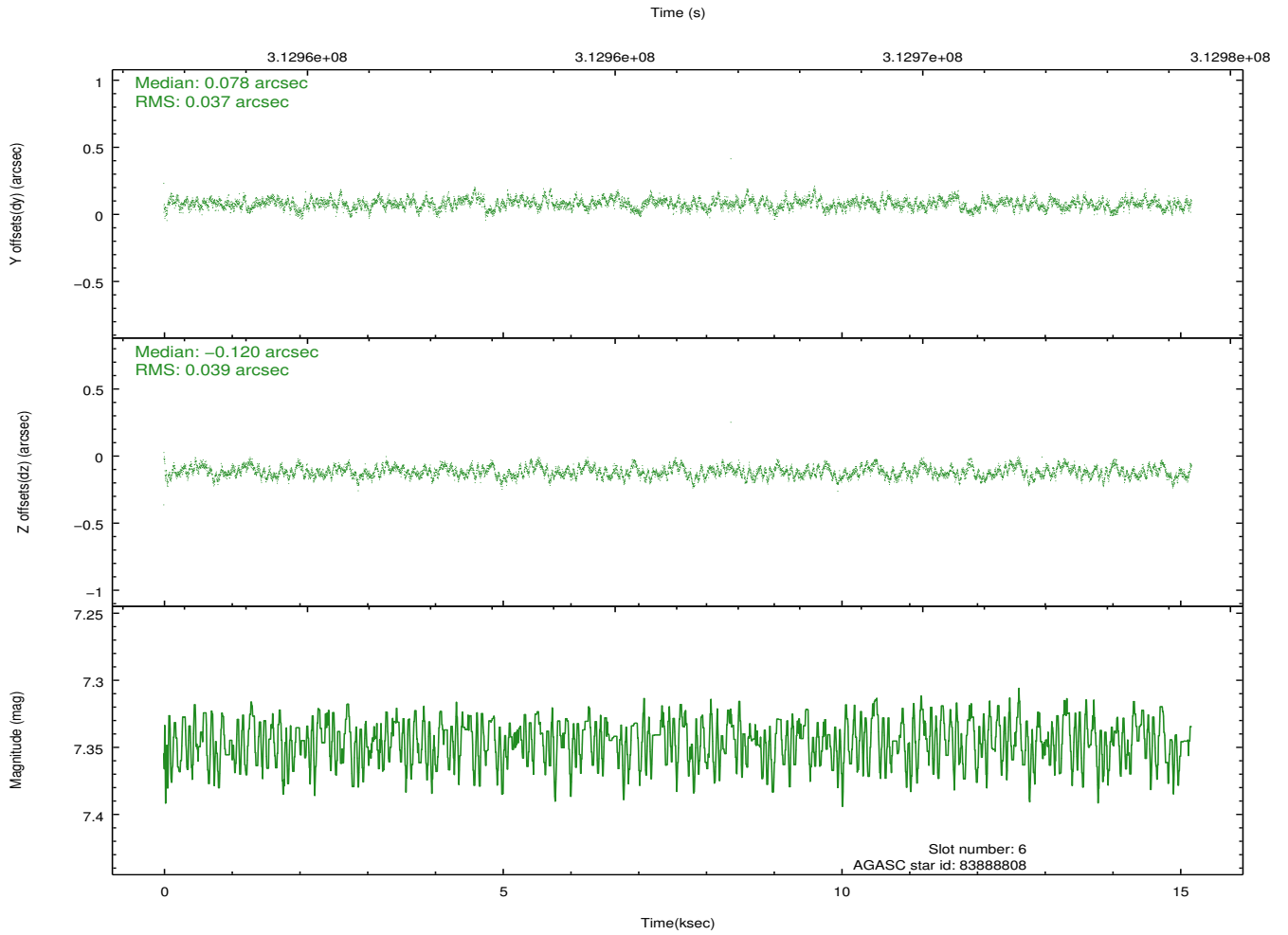
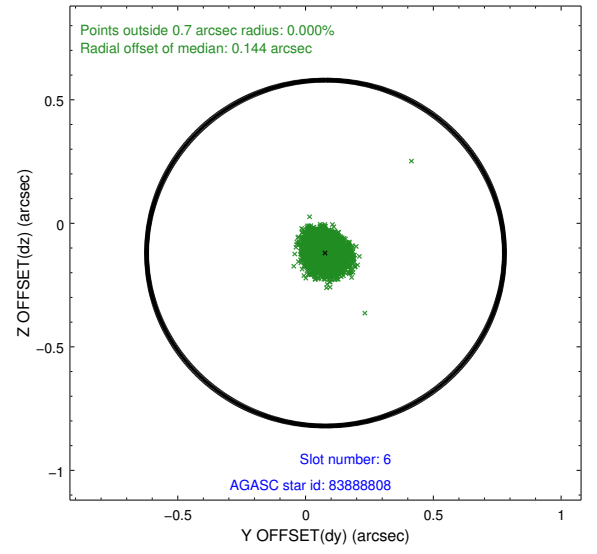
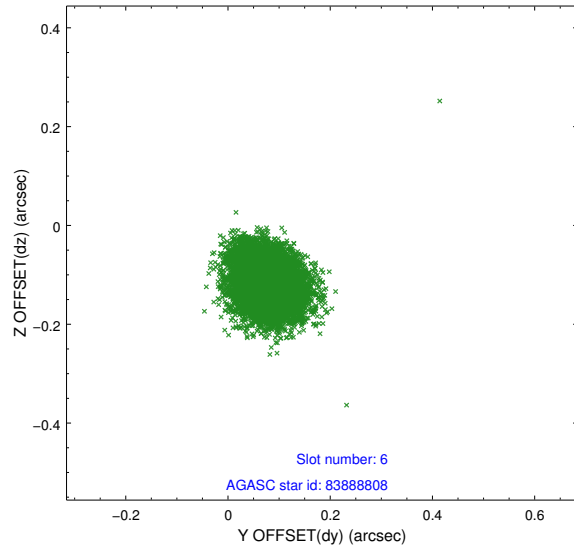
## 2.4.2 Slot 4



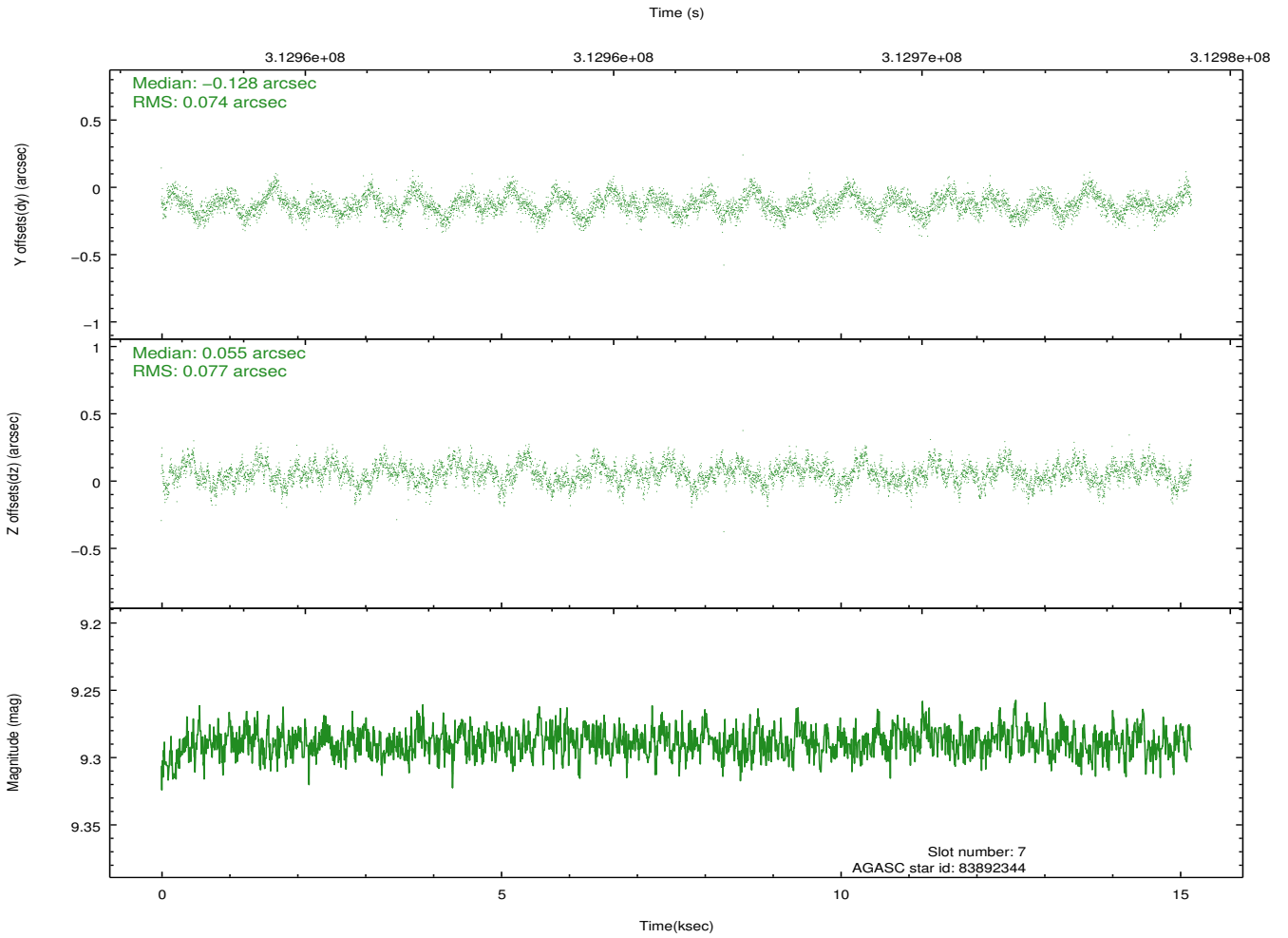
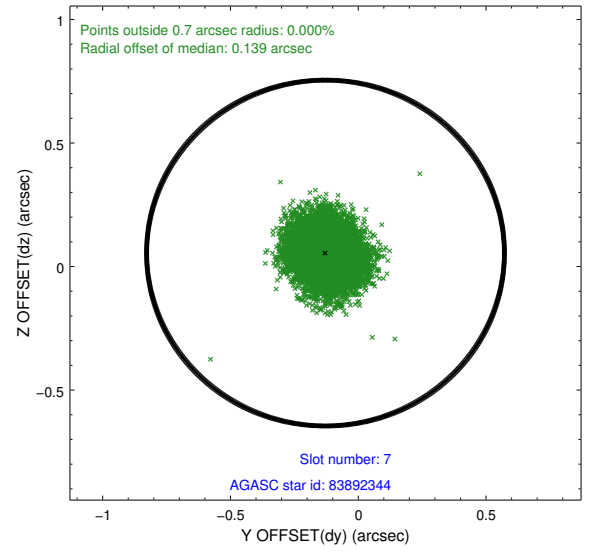
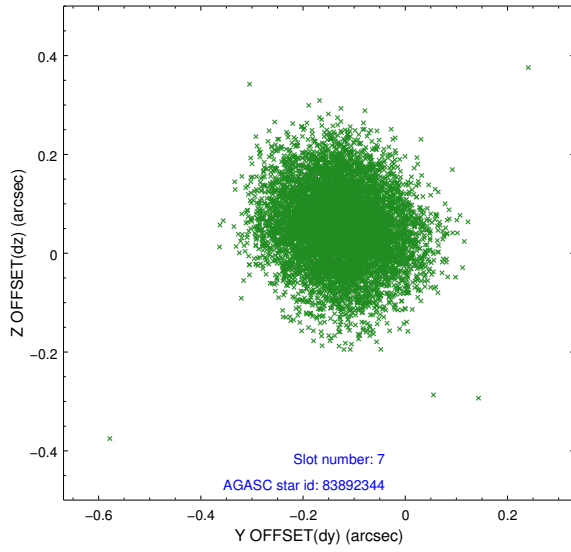
### 2.4.3 Slot 5



## 2.4.4 Slot 6

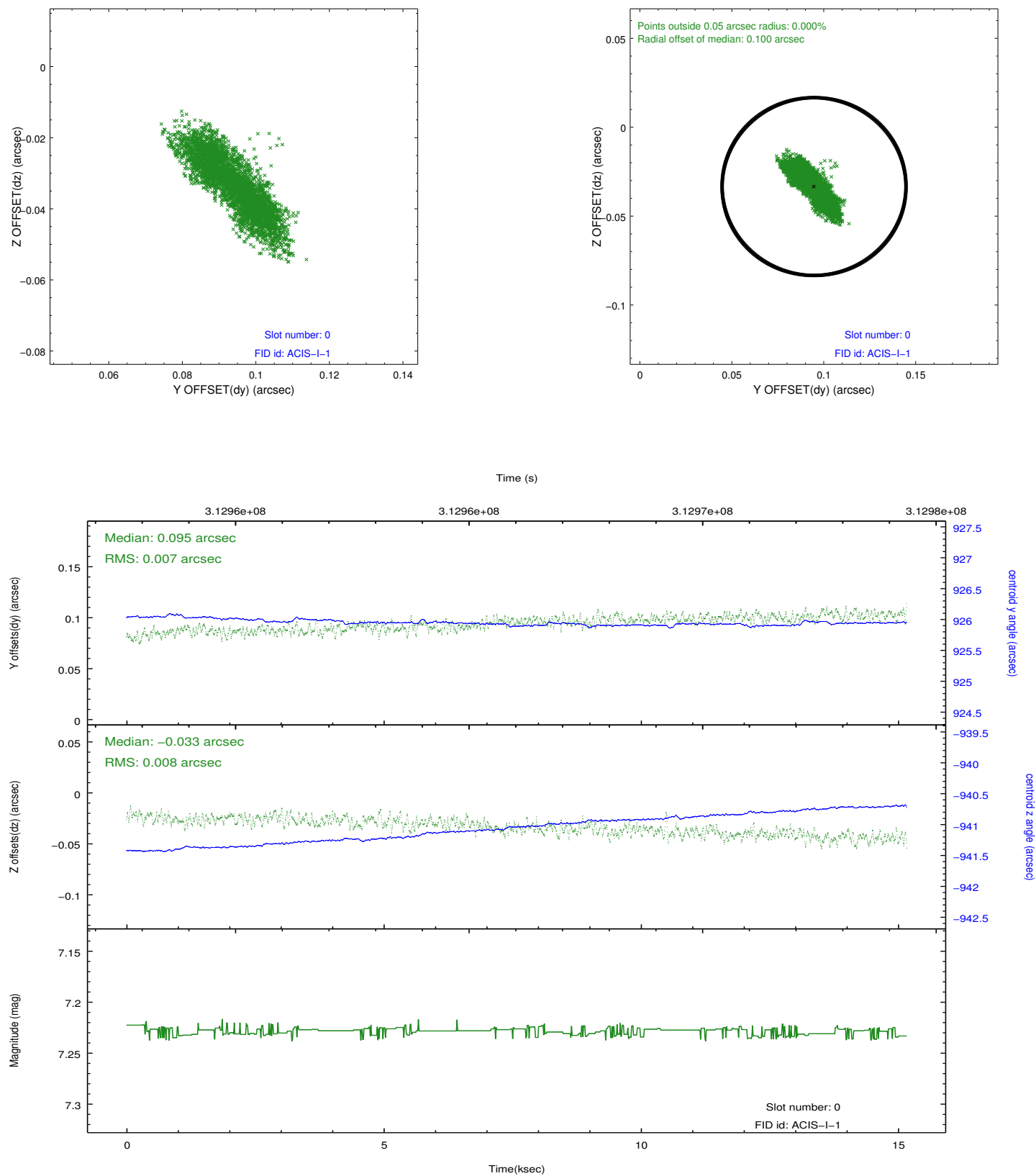


## 2.4.5 Slot 7

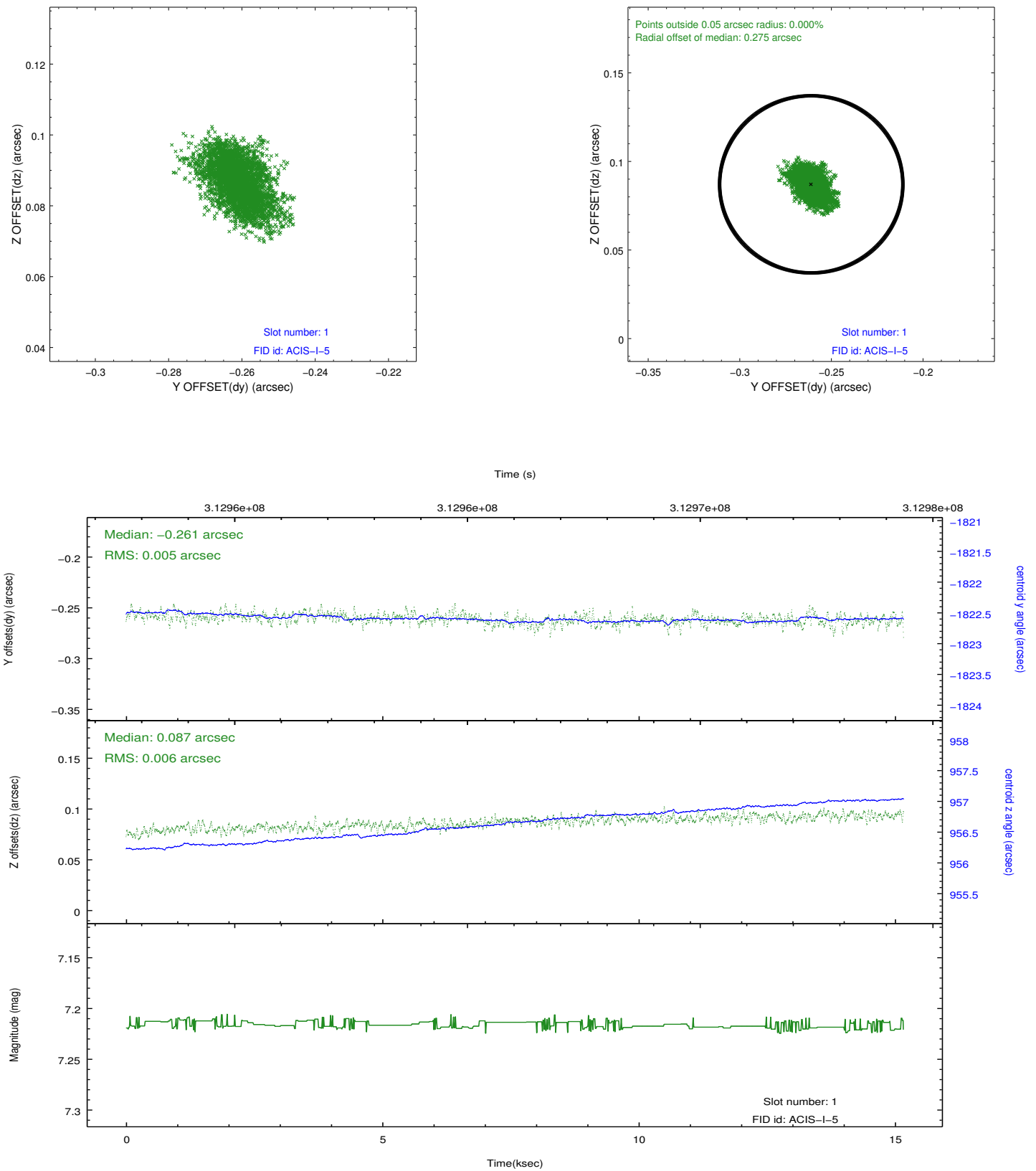


## 2.5 FID Slots

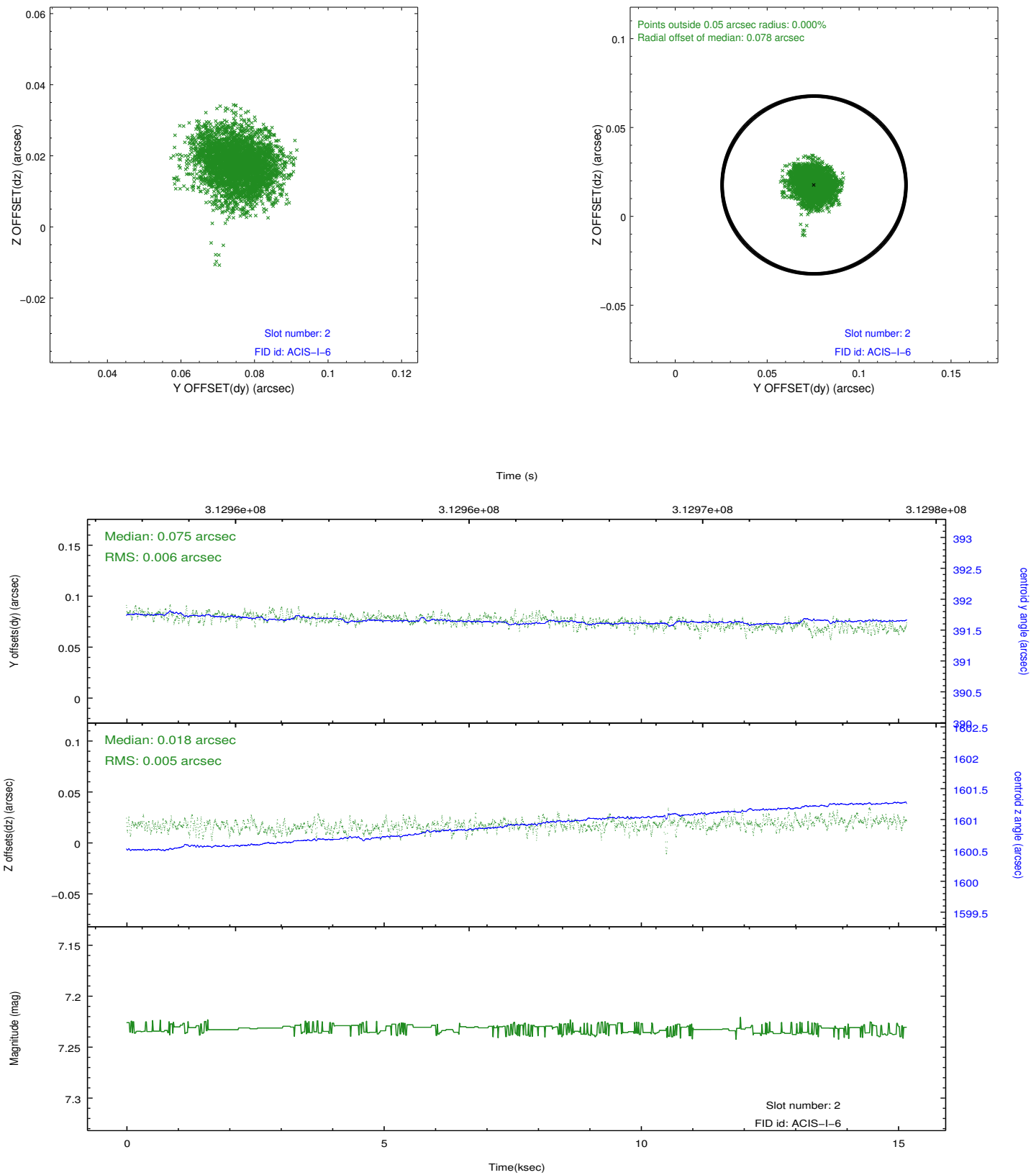
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



## A Summary

### A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2012.05.08
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	15.1652001

### A.2 Comments